

Amendments to the claims:

Please amend the claims as indicated below. Added text is underlined and deleted text is either struck through or shown in double enclosing brackets. Applicants aver that no new matter has been added.

- 1 1. (currently amended) In a network, a method for categorizing received
2 e-mail messages comprising:
 - 3 a) receiving an e-mail message;
 - 4 b) identifying information about a sender of the e-mail
5 message including at least one of the following:
 - 6 i) an actual sender
 - 7 ii) a final IP address used by the sender;
 - 8 iii) a final domain name used by the sender;
 - 9 iv) an IP path used by the sender;
 - 10 c) sending the identified information about the sender
11 and disposition of the e-mail message to at least one database, wherein
12 the at least one database includes one of the following:
 - 13 i) a central database;
 - 14 ii) at least two centrally-maintained databases,
15 each storing and compiling different information and statistics; and
 - 16 iii) a local database;
 - 17 d) compiling statistics based on the identified information
18 about the sender; and
 - 19 e) using compiled statistics to create a score indicating a
20 likelihood the received e-mail message is unsolicited e-mail.

1 2. (original) The method of claim 1 wherein the actual sender is
2 identified by a signature including at least two of the following fields from
3 the message header:

- 4 a) an e-mail address used by the sender;
- 5 b) a display name used by the sender;
- 6 c) a domain name used by the sender;
- 7 d) the final IP address used by the sender;
- 8 e) the final domain name used by the sender;
- 9 f) the name of client software used by the actual sender;
- 10 g) user-agent;
- 11 h) timezone;
- 12 i) source IP address;
- 13 j) sendmail version used by a first receiver; and
- 14 k) the IP path used to route the message.

1 3. (original) The method of claim 1 wherein the actual sender is
2 identified by a signature including a range of IP addresses and at least
3 one of the following fields from the message header:

- 4 a) an e-mail address used by the sender;
- 5 b) a display name used by the sender;
- 6 c) a domain name used by the sender;
- 7 d) the final IP address used by the sender;
- 8 e) the final domain name used by the sender;
- 9 f) the name of client software used by the actual sender;
- 10 g) user-agent;
- 11 h) timezone;
- 12 i) source IP address;
- 13 j) sendmail version used by a first receiver; and
- 14 k) the IP path used to route the message.

1 4. (original) The method of claim 1 wherein the score increases as a
2 number of accepted messages having the same information about the
3 sender as the received message increases, the information including one of
4 the following:

- 5 a) an actual sender;
- 6 b) a final IP address used by the sender;
- 7 c) a final domain name used by the sender;
- 8 d) an IP path used by the sender.

1 5. (original) he method of claim 1 wherein the score decreases as a
2 number of rejected messages having the same information about the
3 sender as the received message increases, the information including one of
4 the following:

- 5 a) an actual sender;
- 6 b) a final IP address used by the sender;
- 7 c) a final domain name used by the sender;
- 8 d) an IP path used by the sender.

1 6. (original) The method of claim 1 wherein the score increases as a
2 number of unique users in the network accepting messages having the
3 same information about the sender as the received message increases, the
4 information including one of the following:

- 5 a) an actual sender;
- 6 b) a final IP address used by the sender;
- 7 c) a final domain name used by the sender;
- 8 d) an IP path used by the sender.

1 7. (original) The method of claim 1 wherein the score decreases as a
2 number of unique users in the network rejecting messages having the
3 same information about the sender as the received message increases, the
4 information including one of the following:

- 5 a) an actual sender;
- 6 b) a final IP address used by the sender;
- 7 c) a final domain name used by the sender;
- 8 d) an IP path used by the sender.

1 8. (original) The method of claim 1 further comprising determining the
2 final IP address by identifying an IP address of a first network device used
3 to send the e-mail message to a second network device trusted by a
4 recipient of the message.

1 9. (original) The method of claim 1 further comprising determining the
2 final domain name by identifying a domain name of an IP address of a
3 first network device used to send the e-mail message to a second network
4 device trusted by a recipient of the message.

1 10. (original) The method of claim 9 further comprising determining the
2 final domain name used by the sender by removing a predetermined
3 number of subdomains from the domain name of the IP address of the first
4 network device used to send the e-mail message to the second network
5 device trusted by the recipient of the message.

1 11. (original) The method of claim 1 further comprising creating a
2 whitelist indicating which messages will be accepted by a recipient, the
3 accepted messages identified by at least one of the following:

- 4 a) an e-mail address;
- 5 b) an actual sender;
- 6 c) a display name;
- 7 d) a domain name;
- 8 e) a final domain name;
- 9 f) a final IP address; and
- 10 g) an IP path.

1 12. (original) The method of claim 11 further comprising placing the
2 message in the recipient's inbox if the whitelist indicates the recipient will
3 accept the message.

1 13. (original) The method of claim 1 further comprising creating a
2 blacklist which indicates which messages will not be accepted by a
3 recipient, the unaccepted messages identified by at least one of the
4 following:

- 5 a) an e-mail address;
- 6 b) an actual sender;
- 7 c) a display name;
- 8 d) a domain name;
- 9 e) a final domain name;
- 10 f) a final IP address; and
- 11 g) an IP path.

1 14. (original) The method of claim 13 further comprising disposing of the
2 message if the blacklist indicates the recipient will not accept the
3 message, the disposal of the message including one of the following:

- 4 a) placing the message in a spam folder; or
- 5 b) deleting the message.

1 15. (original) The method of claim 1 wherein information about received
2 messages sent to the at least one database includes at least two of the
3 following:

- 4 a) information about the actual sender;
- 5 b) whether the actual sender is included on a recipient's
6 whitelist;
- 7 c) whether the actual sender is included on a recipient's
8 blacklist;
- 9 d) information about the final IP address;
- 10 e) whether the final IP address is included on the
11 recipient's whitelist;
- 12 f) whether the final IP address is included on the
13 recipient's blacklist;
- 14 g) information about the final domain name;
- 15 h) whether the final domain name is included on the
16 recipient's whitelist;
- 17 i) whether the final domain name is included on the
18 recipient's blacklist;
- 19 j) information about the IP path;
- 20 k) whether the IP path is included on the recipient's
21 whitelist;
- 22 l) whether the IP path is included on the recipient's
23 blacklist;
- 24 m) whether the message could be categorized locally; and
- 25 n) whether a recipient changed a whitelist/ blacklist
26 status of the message.

1 16. (original) The method of claim 15 further comprising storing
2 information about received messages at the at least one database.

1 17. (original) The method of claim 1 further comprising requesting the at
2 least one database to send a recipient of the e-mail message statistics
3 about at least one of the following:

- 4 a) an actual sender;
- 5 b) a final IP address;
- 6 c) a final domain name;
- 7 d) an IP path.

1 18. (original) The method of claim 16 further comprising storing
2 information about messages sent from an actual sender including at least
3 one of the following:

- 4 a) a total number of messages sent;
- 5 b) a number of messages sent over a first predetermined
6 time period;
- 7 c) a total number of messages sent to recipients in the
8 network who have included the actual sender on a whitelist;
- 9 d) a number of messages sent to recipients in the network
10 who have included the actual sender on the whitelist over a second
11 predetermined time period;
- 12 e) a number of recipients who know the actual sender;
- 13 f) a total number of times a recipient changed an actual
14 sender's whitelist/blacklist status;
- 15 g) a number of times a recipient changed an actual
16 sender's whitelist/blacklist status over a third predetermined time period;
- 17 h) a total number of messages sent to recipients in the
18 network who don't know the actual sender;
- 19 i) a number of messages sent to recipients in the network
20 who don't know the actual sender over a fourth predetermined time
21 period;
- 22 j) a total number of unique recipients in the network who
23 have received at least one message from the actual sender;
- 24 k) a total number of messages sent to unique recipients in
25 a network who have included the actual sender on a whitelist; and
- 26 l) a total number of messages sent to unique recipients in
27 the network who have not included the actual sender on the whitelist.

1 19. (original) The method of claim 16 further comprising storing
2 information about messages sent from a final IP address including at least
3 one of the following:

4 a) a total number of messages sent;

5 b) a number of messages sent over a first predetermined
6 time period;

7 c) a total number of messages sent to recipients in the
8 network who have included a sender on a whitelist;

9 d) a number of messages sent to recipients in the network
10 who have included the sender on the whitelist over a second
11 predetermined time period;

12 e) a number of recipients who have whitelisted senders
13 having the final IP address;

14 f) a total number of times a recipient changed a
15 whitelist/blacklist status of any sender using the final IP address;

16 g) a number of times a recipient changed the
17 whitelist/blacklist status of any sender using the final IP address over a
18 third predetermined time period;

19 h) a total number of messages sent to recipients in the
20 network who have not included the sender on the whitelist;

21 i) a number of messages sent to recipients in the network
22 who have not included the sender on the whitelist over a fourth
23 predetermined time period;

24 j) a total number of unique recipients in the network who
25 have received at least one message from at least one sender using the final
26 IP address;

27 k) a total number of messages sent to unique recipients in
28 the network who have included the sender on the whitelist; and

29 l) a total number of messages sent to unique recipients in
30 the network who have not included the sender on the whitelist.

1 20. (original) The method of claim 16 further comprising storing
2 information about messages sent from a final domain name including at
3 least one of the following:

- 4 a) a total number of messages sent;
- 5 b) a number of messages sent over a first predetermined
6 time period;
- 7 c) a total number of messages sent to recipients in the
8 network who have included a sender on a whitelist;
- 9 d) a number of messages sent to recipients in the network
10 who have included the sender on the whitelist over a second
11 predetermined time period;
- 12 e) a number of recipients who have whitelisted senders
13 using the final domain name;
- 14 f) a total number of times a recipient changed a
15 whitelist/blacklist status of any sender using the final domain name;
- 16 g) a number of times a recipient changed the
17 whitelist/blacklist status of any sender using the final domain name over
18 a third predetermined time period;
- 19 h) a total number of messages sent to recipients in the
20 network who have not included the sender on the whitelist;
- 21 i) a number of messages sent to recipients in the network
22 who have not included the sender on the whitelist over a fourth
23 predetermined time period;
- 24 j) a total number of unique recipients in the network who
25 have received at least one message from at least one sender using the final
26 domain name;
- 27 k) a total number of messages sent to unique recipients in
28 the network who have included the sender on the whitelist; and
- 29 l) a total number of messages sent to unique recipients in
30 the network who have not included the sender on the whitelist.

1 21. (original) The method of claim 16 further comprising storing
2 information about messages using an IP path including at least one of the
3 following:

- 4 a) a total number of messages sent;
- 5 b) a number of messages sent over a first predetermined
6 time period;
- 7 c) a total number of messages sent to recipients in the
8 network who have included a sender on a whitelist;
- 9 d) a number of messages sent to recipients in the network
10 who have included the sender on the whitelist over a second
11 predetermined time period;
- 12 e) a number of recipients who have whitelisted senders
13 using the IP path;
- 14 f) a total number of times a recipient changed a
15 whitelist/blacklist status of any sender using the IP path;
- 16 g) a number of times a recipient changed the
17 whitelist/blacklist status of any sender using the IP path over a third
18 predetermined time period;
- 19 h) a total number of messages sent to recipients in the
20 network who have not included the sender on the whitelist;
- 21 i) a number of messages sent to recipients in the network
22 who have not included the sender on the whitelist over a fourth
23 predetermined time period;
- 24 j) a total number of unique recipients in the network who
25 have received at least one message from at least one sender using the IP
26 path;
- 27 k) a total number of messages sent to unique recipients in
28 the network who have included the sender on the whitelist; and
- 29 l) a total number of messages sent to unique recipients in
30 the network who have not included the sender on the whitelist.

1 22. (original) The method of claim 1 wherein compiling statistics includes
2 at least one of the following:

3 a) determining a ratio of a first number e-mail messages
4 sent by an actual sender to recipients in the network who have included
5 the sender on the whitelist in a predetermined time period divided by a
6 second number of e-mail messages sent by an actual sender to users in the
7 network in the predetermined time period;

8 b) determining a ratio of a first number of recipients in
9 the network who have included the sender on the whitelist divided by a
10 second number of unique recipients in the network who received e-mails
11 from the actual sender in a predetermined time period;

12 c) determining a ratio of a first number of times in a
13 predetermined time interval a message from the actual sender was moved
14 from a whitelist to a blacklist divided by a second number of times a
15 message from the actual sender was moved from a whitelist to a blacklist;

16 d) determining a ratio of a first number of times in a
17 predetermined time interval a message from the actual sender was moved
18 from a blacklist to a whitelist divided by a second number of times a
19 message from the actual sender was moved from a blacklist to a whitelist;

20 e) determining a ratio of a first number of unique users
21 within the network who whitelisted an actual sender within a
22 predetermined time period compared to a second number of unique users
23 within the network who blacklisted the actual sender within the
24 predetermined time period;

25 f) determining a ratio reflecting whether an actual
26 sender sends a majority of messages to known recipients;

27 g) determining a ratio reflecting a first number of wanted
28 messages sent by the actual sender compared to a second number of
29 unwanted or total messages sent by the actual sender;

30 h) determining a difference between a first number of
31 expected messages sent by the actual sender and a second number of
32 unexpected messages sent by the actual sender;

33 i) determining a difference between a first number of
34 times a user whitelisted a message from an actual sender and a second
35 number of times a user blacklisted a message from the actual sender; and
36 j) determining a difference reflecting whether the actual
37 sender sends a majority of messages to known recipients.

1 23. (original) The method of claim 1 wherein compiling statistics includes
2 at least one of the following:

3 a) determining a ratio of a first number e-mail messages
4 sent by any sender using a final IP address to recipients in the network
5 who have included the sender on the whitelist in a predetermined time
6 period divided by a second number of e-mail messages sent by an any
7 sender using the final IP address to users in the network in the
8 predetermined time period;

9 b) determining a ratio of a first number of recipients in
10 the network who have included the sender on the whitelist divided by a
11 second number of unique recipients in the network who received e-mails
12 from any sender using the final IP address in a predetermined time
13 period;

14 c) determining a ratio of a first number of times in a
15 predetermined time interval a message from any sender using the final IP
16 address was moved from a whitelist to a blacklist divided by a second
17 number of times a message from any sender using the final IP address
18 was moved from a whitelist to a blacklist;

19 d) determining a ratio of a first number of times in a
20 predetermined time interval a message from any sender using the final IP
21 address was moved from a blacklist to a whitelist divided by a second
22 number of times a message from any sender using the final IP address
23 was moved from a blacklist to a whitelist;

24 e) determining a ratio of a first number of unique users
25 within the network who whitelisted any sender using the final IP address
26 within a predetermined time period compared to a second number of
27 unique users within the network who blacklisted any sender using the
28 final IP address within the predetermined time period;

29 f) determining a ratio reflecting whether any sender
30 using the final IP address sends a majority of messages to recipients who
31 have included the sender on the whitelist;

32 g) determining a ratio reflecting a first number of wanted
33 messages sent by any sender using the final IP address compared to a
34 second number of unwanted or total messages sent by any sender using
35 the final IP address;
36 h) determining a difference between a first number of
37 expected messages sent by any sender using the final IP address and a
38 second number of unexpected messages sent by any sender using the final
39 IP address;
40 i) determining a difference between a first number of
41 times a user whitelisted a message from an actual sender and a second
42 number of times a user blacklisted a message from any sender using the
43 final IP address; and
44 j) determining a difference reflecting whether any sender
45 using the final IP address sends a majority of messages to recipients who
46 have included the sender on the whitelist.

1 24. (original) The method of claim 1 wherein compiling statistics includes
2 at least one of the following:

3 a) determining a ratio of a first number e-mail messages
4 sent by any sender using a final domain name to recipients in the network
5 who have included the sender on the whitelist in a predetermined time
6 period divided by a second number of e-mail messages sent by an any
7 sender using the final domain name to users in the network in the
8 predetermined time period;

9 b) determining a ratio of a first number of recipients in
10 the network who have included the sender on the whitelist divided by a
11 second number of unique recipients in the network who received e-mails
12 from any sender using the final domain name in a predetermined time
13 period;

14 c) determining a ratio of a first number of times in a
15 predetermined time interval a message from any sender using the final
16 domain name was moved from a whitelist to a blacklist divided by a
17 second number of times a message from any sender using the final domain
18 name was moved from a whitelist to a blacklist;

19 d) determining a ratio of a first number of times in a
20 predetermined time interval a message from any sender using the final
21 domain name was moved from a blacklist to a whitelist divided by a
22 second number of times a message from any sender using the final domain
23 name was moved from a blacklist to a whitelist;

24 e) determining a ratio of a first number of unique users
25 within the network who whitelisted any sender using the final domain
26 name within a predetermined time period compared to a second number of
27 unique users within the network who blacklisted any sender using the
28 final domain name within the predetermined time period;

29 f) determining a ratio reflecting whether any sender
30 using the final domain name sends a majority of messages to recipients
31 who have included the sender on the whitelist;

32 g) determining a ratio reflecting a first number of wanted
33 messages sent by any sender using the final domain name compared to a
34 second number of unwanted or total messages sent by any sender using
35 the final domain name;

36 h) determining a difference between a first number of
37 expected messages sent by any sender using the final domain name and a
38 second number of unexpected messages sent by any sender using the final
39 domain name;

40 i) determining a difference between a first number of
41 times a user whitelisted a message from an actual sender and a second
42 number of times a user blacklisted a message from any sender using the
43 final domain name; and

44 j) determining a difference reflecting whether any sender
45 using the final domain name sends a majority of messages to recipients
46 who have included the sender on the whitelist.

1 25. (original) The method of claim 1 wherein compiling statistics includes
2 at least one of the following:

3 a) determining a ratio of a first number e-mail messages
4 sent by any sender using an IP path to recipients in the network who have
5 included the sender on the whitelist in a predetermined time period
6 divided by a second number of e-mail messages sent by any sender using
7 the IP path to users in the network in the predetermined time period;

8 b) determining a ratio of a first number of recipients in
9 the network who have included the sender on the whitelist divided by a
10 second number of unique recipients in the network who received e-mails
11 from any sender using the IP path in a predetermined time period;

12 c) determining a ratio of a first number of times in a
13 predetermined time interval a message from any sender using the IP path
14 was moved from a whitelist to a blacklist divided by a second number of
15 times a message from any sender using the IP path was moved from a
16 whitelist to a blacklist;

17 d) determining a ratio of a first number of times in a
18 predetermined time interval a message from any sender using the IP path
19 was moved from a blacklist to a whitelist divided by a second number of
20 times a message from any sender using the IP path was moved from a
21 blacklist to a whitelist;

22 e) determining a ratio of a first number of unique users
23 within the network who whitelisted any sender using the IP path within a
24 predetermined time period compared to a second number of unique users
25 within the network who blacklisted any sender using the IP path within
26 the predetermined time period;

27 f) determining a ratio reflecting whether any sender
28 using the IP path sends a majority of messages to recipients who have
29 included the sender on the whitelist;

30 g) determining a ratio reflecting a first number of wanted
31 messages sent by any sender using the IP path compared to a second
32 number of unwanted or total messages sent by any sender using the IP
33 path;
34 h) determining a difference between a first number of
35 expected messages sent by any sender using the IP path and a second
36 number of unexpected messages sent by any sender using the IP path;
37 i) determining a difference between a first number of
38 times a user whitelisted a message from an actual sender and a second
39 number of times a user blacklisted a message from any sender using the
40 IP path; and
41 j) determining a difference reflecting whether any sender
42 using the IP path sends a majority of messages to recipients who have
43 included the sender on the whitelist.

1 26. (original) The method of claim 1 further comprising setting a
2 predetermined threshold for accepting messages identified by one of the
3 following:

- 4 a) the actual sender;
- 5 b) a final IP address;
- 6 c) a final domain name;
- 7 d) a final IP path.

1 27. (original) The method of claim 26 further comprising accepting
2 messages when information about the message exceeds the predetermined
3 threshold.

1 28. (currently amended) The method of claim [[2]]1 further comprising
2 setting a low threshold to differentiate wanted messages from unsolicited
3 messages, wherein the low threshold is either:

4 a) greater than one percent of a number of messages sent
5 are accepted, wherein the messages are characterized by one of the
6 following:

- 7 i) an actual sender;
- 8 ii) a final IP address;
- 9 iii) a final domain name; or
- 10 iv) an IP path;or

11 b) greater than one percent of a number of unique users
12 accepting a message wherein the message is characterized by one of the
13 following:

- 14 i) an actual sender;
- 15 ii) a final IP address;
- 16 iii) a final domain name; or
- 17 iv) an IP path.

1 29. (original) The method of claim 1 further comprising revising statistics
2 when a recipient changes a whitelist/blacklist status of one of the
3 following:

- 4 a) an actual sender;
- 5 b) a final IP address;
- 6 c) a final domain name; or
- 7 d) an IP path.

1 30. (original) The method of claim 15 further comprising creating a key
2 for storing information about the actual sender.

1 31. (original) The method of claim 30 wherein the key is the information
2 used to identify the actual sender.

1 32. (original) The method of claim 29 wherein a manual reversal of a
2 whitelist/blacklist status is more heavily weighted when computing
3 statistics.

1 33. (original) The method of claim 1 wherein processing the received
2 message includes placing the message in the recipient's inbox.

1 34. (original) The method of claim 1 wherein processing the received
2 message includes placing the message in a spam folder.

1 35. (original) The method of claim 34 further comprising monitoring the
2 spam folder at predetermined intervals to determine whether messages
3 should be released.

1 36. (original) The method of claim 35 further comprising automatically
2 releasing the message from the spam folder when the reputation of one of
3 the following:

- 4 a) the actual sender;
 - 5 b) the final IP address;
 - 6 c) the final domain name; or
 - 7 d) the IP path;
- 8 passes a predetermined threshold.

1 37. (original) The method of claim 34 further comprising reevaluating the
2 spam folder immediately before it is displayed to a recipient such that
3 information about messages in the spam folder is current when viewed by
4 the recipient.

1 38. (original) The method of claim 34 further comprising manually
2 transferring the message from the spam folder to the recipient's inbox.

1 39. (original) The method of claim 1 further comprising sending the
2 recipient information about at least one of the following:

- 3 a) the actual sender;
- 4 b) the final IP address;
- 5 c) the final domain name; and
- 6 d) the IP path.

1 40. (original) The method of claim 39 further comprising the sending the
2 recipient information about at least one of the following:

- 3 a) the final IP address;
- 4 b) the final domain name; and
- 5 c) the IP path;

6 when there is insufficient information about the actual sender.

1 41. (original) The method of claim 29 wherein a manual reversal of a
2 whitelist/blacklist status is more heavily weighted when revising
3 statistics.

1 42. (original) The method of claim 1 further comprising applying the
2 score to the appropriate message in a spam folder.

1 43. (original) The method of claim 26 further comprising each user
2 setting a predetermined personalized spam threshold, wherein an
3 incoming message that exceeds the spam threshold is sent to a folder
4 designated to hold spam messages.

1 44. (original) The method of claim 26 further comprising each user
2 setting a predetermined personalized delete threshold, wherein an
3 incoming message that exceeds the delete threshold is deleted.

1 45. (original) The method of claim 1 further comprising maintaining at
2 either the central database or the at least two centrally-maintained
3 databases at least four of the following values:

4 a) a number of messages which were explicitly ranked
5 good;

6 b) a number of messages which were implicitly ranked
7 good;

8 c) a number of messages whose ranking is unknown;

9 d) a number of messages which were explicitly ranked
10 bad; and

11 e) a number of messages which were implicitly ranked
12 bad;

13 wherein the values are based on messages having the same
14 information about the sender including one of the following:

15 i) an actual sender;

16 ii) a final IP address used by the sender;

17 iii) a final domain name used by the sender; or

18 iv) an IP path used by the sender.

1 46. (original) The method of claim 45 wherein the values represent one of
2 the following:

3 a) message counts; or

4 b) ratings of unique users within the network.

1 47. (original) The method of claim 46 further comprising at least four of
2 the values being returned to the recipient to allow the recipient to apply
3 different weights to a message in order to categorize the message.

1 48. (original) The method of claim 1 further comprising evaluating an
2 unknown sender based on statistics of one of the following:

3 a) a known final IP address used by the sender; or

4 b) a known final domain name used by the sender.

1 49. (original) The method of claim 1 further comprising evaluating an
2 unknown sender using either a known final IP address or a known final
3 domain name based on statistics about other new senders using either the
4 known final IP address or the known final domain.

1 50. (original) The method of claim 1 further comprising giving an
2 unknown final IP address or final domain name an initial good rating.

1 51. (original) The method of claim 1 further comprising giving an
2 unknown final IP address or domain name an initial rating based on the
3 length of time the network has been in operation.

1 52. (original) The method of claim 15 further comprising older members
2 of the network overwriting a new member's message ratings when the
3 new member's ratings are inconsistent when compared to other member's
4 ratings.

1 53. (original) The method of claim 1 wherein a final message score is
2 determined by one of the following:

- 3 a) an average of two scores for a message; or
4 b) a product of two scores for the message;

5 wherein the scores for messages are based on statistics
6 associated with a least two of the following:

- 7 a) an actual sender of the message;
8 b) a final IP address used by the sender;
9 c) a final domain name used by the sender; or
10 d) an IP path used by the sender.

1 54. (original) The method of claim 17 wherein personal statistics are
2 checked at the local database before global statistics at either the central
3 database or the at least two centrally-maintained databases are checked.

1 55. (original) The method of claim 1 further comprising rating a sender
2 by:

3 a) releasing small numbers a sender's messages to
4 recipients; and

5 b) monitoring the recipients' classification of these
6 messages.

1 56. (original) The method of claim 1 further comprising changing one
2 user's rating when other members outvote the user's rating.

1 57. (original) The method of claim 17 wherein either the central database
2 or the at least two centrally-maintained databases return more than one
3 value to the recipient.

1 58. (original) The method of claim 33 further comprising monitoring the
2 inbox at predetermined intervals to determine whether messages should
3 remain in the inbox.

1 59. (original) The method of claim 1 wherein a first score for an unknown
2 sender using a known final IP address or final domain name may be
3 obtained by multiplying a second score for the final IP address or final
4 domain name by a number less than one.

1 60. (original) The method of claim 11 further comprising creating the
2 whitelist by adding the following to the whitelist:

3 a) any e-mail addresses stored by a user of the e-mail
4 program;

5 b) any e-mail address in an outgoing message; and

6 c) any e-mail address of a sender of a message having the
7 same subject line as another message previously sent by the user.

1 61. (original) The method of claim 60 further comprising combining each
2 e-mail address added to the whitelist with at least one other piece of
3 information from the message header including:

- 4 a) a display name used by the sender;
- 5 b) a domain name used by the sender;
- 6 c) the final IP address used by the sender;
- 7 d) the final domain name used by the sender;
- 8 e) the name of client software used by the actual sender;
- 9 f) user-agent;
- 10 g) timezone;
- 11 h) source IP address;
- 12 i) sendmail version used by a first receiver; and
- 13 j) the IP path used to route the message.

1 62. (original) The method of claim 60 further comprising:

- 2 a) scanning messages received by the user; and
- 3 b) determining if a sender of a received message is on the
4 whitelist, wherein if the sender is on the whitelist:

5 i) identifying information about the sender of the
6 message based on data in the message, the identified information about
7 the sender including at least one of the following:

- 8 A) an actual sender of the message;
- 9 B) a final IP address used by the sender;
- 10 C) a final domain name used by the sender;

11 or

12 D) an IP path used by the sender; and
13 ii) sending the identified information to the at least
14 one database.

1 63. (original) The method of claim 1 further comprising categorizing a
2 received message that cannot be rated locally when user activity is
3 observed.

1 64. (original) The method of claim 1 further comprising using a second
2 formula to compute the score for the message when the message is
3 reevaluated, wherein the second formula differs from a first formula used
4 to compute the previous message score.

1 65. (original) The method of claim 1 further comprising sending
2 recipients a notification when any sender's reputation changes.

1 66. (original) The method of claim 65 further comprising reviewing all
2 messages received in a predetermined time period preceding receipt of the
3 notification and updating the categorization of the message as necessary.

1 67. (currently amended) In a network, a method for rating received e-
2 mail messages in a network environment comprising:

3 a) collecting information about a sender of an e-mail
4 message, wherein the collected information about the sender includes at
5 least one of the following:

- 6 i) an actual sender;
- 7 ii) a final IP address used by the sender;
- 8 iii) a final domain name used by the sender; and
- 9 iv) an IP path used by the sender;

10 b) compiling statistics at at least one database about the
11 sender based on the collected information about the sender, wherein the at
12 least one database includes one of the following:

- 13 i) a central database;
- 14 ii) at least two centrally-maintained databases,
15 each storing and compiling different information and statistics; and
- 16 iii) a local database; and

17 c) creating a score based on the compiled statistics
18 indicating the likelihood a message is unsolicited e-mail.

1 68. (original) The method of claim 67 wherein the actual sender is
2 identified by a signature including at least two of the following fields from
3 the message header:

- 4 a) an e-mail address used by the sender;
- 5 b) a display name used by the sender;
- 6 c) a domain name used by the sender;
- 7 d) the final IP address used by the sender;
- 8 e) the final domain name used by the sender;
- 9 f) the name of client software used by the actual sender;
- 10 g) user-agent;
- 11 h) timezone;
- 12 i) source IP address;
- 13 j) sendmail version used by a first receiver; and
- 14 k) the IP path used to route the message.

1 69. (original) The method of claim 67 wherein the actual sender is
2 identified by a signature including a range of IP addresses and at least
3 one of the following fields from the message header:

- 4 a) an e-mail address used by the sender;
- 5 b) a display name used by the sender;
- 6 c) a domain name used by the sender;
- 7 d) the final IP address used by the sender;
- 8 e) the final domain name used by the sender;
- 9 f) the name of client software used by the actual sender;
- 10 g) user-agent;
- 11 h) timezone;
- 12 i) source IP address;
- 13 j) sendmail version used by a first receiver; and
- 14 k) the IP path used to route the message.

1 70. (original) The method of claim 67 wherein the score increases as a
2 number of accepted messages having the same information about the
3 sender as the received message increases, the information including one of
4 the following:

- 5 a) an actual sender;
- 6 b) a final IP address used by the sender;
- 7 c) a final domain name used by the sender;
- 8 d) an IP path used by the sender.

1 71. (original) The method of claim 67 wherein the score decreases as a
2 number of rejected messages having the same information about the
3 sender as the received message increases, the information including one of
4 the following:

- 5 a) an actual sender;
- 6 b) a final IP address used by the sender;
- 7 c) a final domain name used by the sender;
- 8 d) an IP path used by the sender.

1 72. (original) The method of claim 67 wherein the score increases as a
2 number of unique users in the network accepting messages having the
3 same information about the sender as the received message increases, the
4 accepted messages characterized by one of the following:

- 5 a) an actual sender;
- 6 b) a final IP address used by the sender;
- 7 c) a final domain name used by the sender;
- 8 d) an IP path used by the sender.

1 73. (original) The method of claim 67 the score decreases as a number of
2 unique users in the network rejecting messages having the same
3 information about the sender as the received message increases, the
4 information including one of the following:

- 5 a) an actual sender;
- 6 b) a final IP address used by the sender;
- 7 c) a final domain name used by the sender;
- 8 d) an IP path used by the sender.

1 74. (original) The method of claim 67 further comprising determining the
2 final IP address by identifying an IP address of a first network device used
3 to send the e-mail message to a second network device trusted by a
4 recipient of the message.

1 75. (original) The method of claim 67 further comprising determining the
2 final domain name by identifying a domain name of an IP address of a
3 first network device used to send the e-mail message to a second network
4 device trusted by a recipient of the message.

1 76. (original) The method of claim 75 further comprising determining the
2 final domain name used by the sender by removing a predetermined
3 number of subdomains from the domain name of the IP address of the first
4 network device used to send the e-mail message to the second network
5 device trusted by the recipient of the message.

1 77. (original) The method of claim 67 further comprising sending
2 information about received messages to the at least one database, the
3 information including at least two of the following:

- 4 a) information about the actual sender;
- 5 b) whether the actual sender is included on a recipient's
6 whitelist;
- 7 c) whether the actual sender is included on a recipient's
8 blacklist;
- 9 d) information about the final IP address;
- 10 e) whether the final sender is included on the recipient's
11 whitelist;
- 12 f) whether the final sender is included on the recipient's
13 blacklist;
- 14 g) information about the final domain name;
- 15 h) whether the final domain name is included on the
16 recipient's whitelist;
- 17 i) whether the final domain name is included on the
18 recipient's blacklist;
- 19 j) information about the IP path;
- 20 k) whether the IP path is included on the recipient's
21 whitelist;
- 22 l) whether the IP path is included on the recipient's
23 blacklist;
- 24 m) whether the message could be categorized locally; and
- 25 n) whether a recipient changed a whitelist/ blacklist
26 status of the message.

1 78. (original) The method of claim 67 further comprising requesting the
2 at least one database to send a recipient statistics about at least one of the
3 following:

- 4 a) the actual sender;
- 5 b) the final IP address;
- 6 c) the final domain name; and
- 7 d) the IP path.

1 79. (original) The method of claim 67 further comprising storing
2 information about messages sent from an actual sender including at least
3 one of the following:

- 4 a) a total number of messages sent;
- 5 b) a number of messages sent over a first predetermined
6 time period;
- 7 c) a total number of messages sent to recipients in a
8 network who have included the actual sender on a whitelist;
- 9 d) a number of messages sent to recipients in the network
10 who have included the actual sender on the whitelist over a second
11 predetermined time period;
- 12 e) a number of recipients who know the actual sender;
- 13 f) a total number of times a recipient changed an actual
14 sender's whitelist/blacklist status;
- 15 g) a number of times a recipient changed an actual
16 sender's whitelist/blacklist status over a third predetermined time period;
- 17 h) a total number of messages sent to recipients in the
18 network who don't know the actual sender;
- 19 i) a number of messages sent to recipients in the network
20 who don't know the actual sender over a fourth predetermined time
21 period;
- 22 j) a total number of unique recipients in the network who
23 have received at least one message from the actual sender;
- 24 k) a total number of messages sent to unique recipients in
25 a network who have included the actual sender on a whitelist; and
- 26 l) a total number of messages sent to unique recipients in
27 the network who have not included the actual sender on the whitelist.

1 80. (original) The method of claim 67 further comprising storing
2 information about messages sent from a final IP address including at least
3 one of the following:

- 4 a) a total number of messages sent;
- 5 b) a number of messages sent over a first predetermined
6 time period;
- 7 c) a total number of messages sent to recipients in the
8 network who have included a sender on a whitelist;
- 9 d) a number of messages sent to recipients in the network
10 who have included the sender on the whitelist over a second
11 predetermined time period;
- 12 e) a number of recipients known to any senders having
13 the final IP address;
- 14 f) a total number of times a recipient changed a
15 whitelist/blacklist status of any sender using the final IP address;
- 16 g) a number of times a recipient changed the
17 whitelist/blacklist status of any sender using the final IP address over a
18 third predetermined time period;
- 19 h) a total number of messages sent to recipients in the
20 network who have not included the sender on the whitelist;
- 21 i) a number of messages sent to recipients in the network
22 who have not included the sender on the whitelist over a fourth
23 predetermined time period;
- 24 j) a total number of unique recipients in the network who
25 have received at least one message from at least one any sender using the
26 final IP address;
- 27 k) a total number of messages sent to unique recipients in
28 the network who have included the sender on the whitelist; and
- 29 l) a total number of messages sent to unique recipients in
30 the network who have not included the sender on the whitelist.

1 81. (original) The method of claim 67 further comprising storing
2 information about messages sent from a final domain name including at
3 least one of the following:

- 4 a) a total number of messages sent;
- 5 b) a number of messages sent over a first predetermined
6 time period;
- 7 c) a total number of messages sent to recipients in the
8 network who have included a sender on a whitelist;
- 9 d) a number of messages sent to recipients in the network
10 who have included the sender on the whitelist over a second
11 predetermined time period;
- 12 e) a number of recipients known to any senders having
13 the final domain name;
- 14 f) a total number of times a recipient changed a
15 whitelist/blacklist status of any sender using the final domain name;
- 16 g) a number of times a recipient changed the
17 whitelist/blacklist status of any sender using the final domain name over
18 a third predetermined time period;
- 19 h) a total number of messages sent to recipients in the
20 network who have not included the sender on the whitelist;
- 21 i) a number of messages sent to recipients in the network
22 who have not included the sender on the whitelist over a fourth
23 predetermined time period;
- 24 j) a total number of unique recipients in the network who
25 have received at least one message from at least one any sender using the
26 final domain name;
- 27 k) a total number of messages sent to unique recipients in
28 the network who have included the sender on the whitelist; and
- 29 l) a total number of messages sent to unique recipients in
30 the network who have not included the sender on the whitelist.

1 82. (original) The method of claim 67 further comprising storing
2 information about messages sent using an IP path including at least one
3 of the following:

- 4 a) a total number of messages sent;
- 5 b) a number of messages sent over a first predetermined
6 time period;
- 7 c) a total number of messages sent to recipients in the
8 network who have included a sender on a whitelist;
- 9 d) a number of messages sent to recipients in the network
10 who have included the sender on the whitelist over a second
11 predetermined time period;
- 12 e) a number of recipients known to any senders using the
13 IP path;
- 14 f) a total number of times a recipient changed a
15 whitelist/blacklist status of any sender using the final domain name;
- 16 g) a number of times a recipient changed the
17 whitelist/blacklist status of any sender using the IP path over a third
18 predetermined time period;
- 19 h) a total number of messages sent to recipients in the
20 network who have not included the sender on the whitelist;
- 21 i) a number of messages sent to recipients in the network
22 who have not included the sender on the whitelist over a fourth
23 predetermined time period;
- 24 j) a total number of unique recipients in the network who
25 have received at least one message from at least one any sender using the
26 IP path;
- 27 k) a total number of messages sent to unique recipients in
28 the network who have included the sender on the whitelist; and
- 29 l) a total number of messages sent to unique recipients in
30 the network who have not included the sender on the whitelist.

1 83. (original) The method of claim 67 wherein compiling statistics
2 includes at least one of the following:

3 a) determining a ratio of a first number e-mail messages
4 sent by an actual sender to recipients in the network who have included
5 the sender on the whitelist in a predetermined time period divided by a
6 second number of e-mail messages sent by an actual sender to users in the
7 network in the predetermined time period;

8 b) determining a ratio of a first number of recipients in
9 the network who have included the sender on the whitelist divided by a
10 second number of unique recipients in the network who received e-mails
11 from the actual sender in a predetermined time period;

12 c) determining a ratio of a first number of times in a
13 predetermined time interval a message from the actual sender was moved
14 from a whitelist to a blacklist divided by a second number of times a
15 message from the actual sender was moved from a whitelist to a blacklist;

16 d) determining a ratio of a first number of times in a
17 predetermined time interval a message from the actual sender was moved
18 from a blacklist to a whitelist divided by a second number of times a
19 message from the actual sender was moved from a blacklist to a whitelist;

20 e) determining a ratio of a first number of unique users
21 within the network who whitelisted an actual sender within a
22 predetermined time period compared to a second number of unique users
23 within the network who blacklisted the actual sender within the
24 predetermined time period;

25 f) determining a ratio reflecting whether an actual
26 sender sends a majority of messages to known recipients;

27 g) determining a ratio reflecting a first number of wanted
28 messages sent by the actual sender compared to a second number of
29 unwanted or total messages sent by the actual sender;

30 h) determining a difference between a first number of
31 expected messages sent by the actual sender and a second number of
32 unexpected messages sent by the actual sender;

33 i) determining a difference between a first number of
34 times a user whitelisted a message from an actual sender and a number of
35 times a user blacklisted a message from the actual sender; and
36 j) determining a difference reflecting whether the actual
37 sender sends a majority of messages to known recipients.

38
39 84. (original) The method of claim 67 wherein compiling statistics
40 includes at least one of the following:

41 a) determining a ratio of a first number e-mail messages
42 sent by any sender using a final IP address to recipients in the network
43 who have included the sender on the whitelist in a predetermined time
44 period divided by a second number of e-mail messages sent by an any
45 sender using the final IP address to users in the network in the
46 predetermined time period;

47 b) determining a ratio of a first number of recipients in
48 the network who have included the sender on the whitelist divided by a
49 second number of unique recipients in the network who received e-mails
50 from any sender using the final IP address in a predetermined time
51 period;

52 c) determining a ratio of a first number of times in a
53 predetermined time interval a message from any sender using the final IP
54 address was moved from a whitelist to a blacklist divided by a second
55 number of times a message from any sender using the final IP address
56 was moved from a whitelist to a blacklist;

57 d) determining a ratio of a first number of times in a
58 predetermined time interval a message from any sender using the final IP
59 address was moved from a blacklist to a whitelist divided by a second
60 number of times a message from any sender using the final IP address
61 was moved from a blacklist to a whitelist;

62 e) determining a ratio of a first number of unique users
63 within the network who whitelisted any sender using the final IP address
64 within a predetermined time period compared to a second number of
65 unique users within the network who blacklisted any sender using the
66 final IP address within the predetermined time period;

67 f) determining a ratio reflecting whether any sender
68 using the final IP address sends a majority of messages to recipients who
69 have included the sender on the whitelist;

70 g) determining a ratio reflecting a first number of wanted
71 messages sent by any sender using the final IP address compared to a
72 second number of unwanted or total messages sent by any sender using
73 the final IP address;

74 h) determining a difference between a first number of
75 expected messages sent by any sender using the final IP address and a
76 second number of unexpected messages sent by any sender using the final
77 IP address;

78 i) determining a difference between a first number of
79 times a user whitelisted a message from an actual sender and a number of
80 times a user blacklisted a message from any sender using the final IP
81 address; and

82 j) determining a difference reflecting whether any sender
83 using the final IP address sends a majority of messages to recipients who
84 have included the sender on the whitelist.

1 85. (original) The method of claim 67 wherein compiling statistics
2 includes at least one of the following:

3 a) determining a ratio of a first number e-mail messages
4 sent by any sender using a final domain name to recipients in the network
5 who have included the sender on the whitelist in a predetermined time
6 period divided by a second number of e-mail messages sent by an any
7 sender using the final domain name to users in the network in the
8 predetermined time period;

9 b) determining a ratio of a first number of recipients in
10 the network who have included the sender on the whitelist divided by a
11 second number of unique recipients in the network who received e-mails
12 from any sender using the final domain name in a predetermined time
13 period;

14 c) determining a ratio of a first number of times in a
15 predetermined time interval a message from any sender using the final
16 domain name was moved from a whitelist to a blacklist divided by a
17 second number of times a message from any sender using the final domain
18 name was moved from a whitelist to a blacklist;

19 d) determining a ratio of a first number of times in a
20 predetermined time interval a message from any sender using the final
21 domain name was moved from a blacklist to a whitelist divided by a
22 second number of times a message from any sender using the final domain
23 name was moved from a blacklist to a whitelist;

24 e) determining a ratio of a first number of unique users
25 within the network who whitelisted any sender using the final domain
26 name within a predetermined time period compared to a second number of
27 unique users within the network who blacklisted any sender using the
28 final domain name within the predetermined time period;

29 f) determining a ratio reflecting whether any sender
30 using the final domain name sends a majority of messages to recipients
31 who have included the sender on the whitelist;

32 g) determining a ratio reflecting a first number of wanted
33 messages sent by any sender using the final domain name compared to a
34 second number of unwanted or total messages sent by any sender using
35 the final domain name;
36 h) determining a difference between a first number of
37 expected messages sent by any sender using the final domain name and a
38 second number of unexpected messages sent by any sender using the final
39 domain name;
40 i) determining a difference between a first number of
41 times a user whitelisted a message from an actual sender and a number of
42 times a user blacklisted a message from any sender using the final domain
43 name; and
44 j) determining a difference reflecting whether any sender
45 using the final domain name sends a majority of messages to recipients
46 who have included the sender on the whitelist.

1 86. (original) The method of claim 67 wherein compiling statistics
2 includes at least one of the following:

3 a) determining a ratio of a first number e-mail messages
4 sent by any sender using an IP path to recipients in the network who have
5 included the sender on the whitelist in a predetermined time period
6 divided by a second number of e-mail messages sent by an any sender
7 using the IP path to users in the network in the predetermined time
8 period;

9 b) determining a ratio of a first number of recipients in
10 the network who have included the sender on the whitelist divided by a
11 second number of unique recipients in the network who received e-mails
12 from any sender using the IP path in a predetermined time period;

13 c) determining a ratio of a first number of times in a
14 predetermined time interval a message from any sender using the IP path
15 was moved from a whitelist to a blacklist divided by a second number of
16 times a message from any sender using the IP path was moved from a
17 whitelist to a blacklist;

18 d) determining a ratio of a first number of times in a
19 predetermined time interval a message from any sender using the IP path
20 was moved from a blacklist to a whitelist divided by a second number of
21 times a message from any sender using the IP path was moved from a
22 blacklist to a whitelist;

23 e) determining a ratio of a first number of unique users
24 within the network who whitelisted any sender using the IP path within a
25 predetermined time period compared to a second number of unique users
26 within the network who blacklisted any sender using the IP path within
27 the predetermined time period;

28 f) determining a ratio reflecting whether any sender
29 using the IP path sends a majority of messages to recipients who have
30 included the sender on the whitelist; and

31 g) determining a ratio reflecting a first number of wanted
32 messages sent by any sender using the IP path compared to a second
33 number of unwanted or total messages sent by any sender using the IP
34 path;

35 h) determining a difference between a first number of
36 expected messages sent by any sender using the IP path and a second
37 number of unexpected messages sent by any sender using the IP path;

38 i) determining a difference between a first number of
39 times a user whitelisted a message from an actual sender and a number of
40 times a user blacklisted a message from any sender using the IP path; and

41 j) determining a difference reflecting whether any sender
42 using the IP path sends a majority of messages to recipients who have
43 included the sender on the whitelist.

1 87. (original) The method of claim 67 further comprising setting a
2 predetermined threshold for accepting messages based on statistics
3 associated with one of the following:

- 4 a) an actual sender;
- 5 b) a final IP address;
- 6 c) a final domain name;
- 7 d) an IP path.

1 88. (original) The method of claim 87 further comprising accepting
2 messages when information about the message exceeds the predetermined
3 threshold.

1 89. (original) The method of claim 88 further comprising setting a low
2 threshold to differentiate wanted messages from unsolicited messages,
3 wherein the low threshold is either:

4 a) greater than one percent of a number of messages sent
5 are accepted, wherein the messages are characterized by one of the
6 following:

- 7 i) an actual sender;
- 8 ii) a final IP address;
- 9 iii) a final domain name; or
- 10 iv) an IP path;

11 b) greater than one percent of a number of unique users
12 accepting a message wherein the message is characterized by one of the
13 following:

- 14 i) an actual sender;
- 15 ii) a final IP address;
- 16 iii) a final domain name; or
- 17 iv) an IP path.

1 90. (original) The method of claim 67 further comprising revising
2 statistics when a recipient changes a whitelist/blacklist status of one of
3 the following:

- 4 a) an actual sender;
- 5 b) a final IP address;
- 6 c) a final domain name; and
- 7 d) an IP path.

1 91. (original) The method of claim 67 further comprising creating a key
2 for storing information about the actual sender.

1 92. (original) The method of claim 91 wherein the key is the information
2 used to identify the actual sender.

1 93. (original) The method of claim 90 wherein a manual reversal of a
2 whitelist/blacklist status is more heavily weighted when computing
3 statistics.

1 94. (original) The method of claim 67 further comprising sending the
2 recipient information about at least one of the following:

- 3 a) the actual sender;
- 4 b) the final IP address;
- 5 c) the final domain name; and
- 6 d) the IP path.

1 95. (original) The method of claim 67 further comprising applying the
2 score to the appropriate message in a spam folder.

1 96. (original) The method of claim 87 further comprising each user
2 setting a predetermined personalized spam threshold, wherein an
3 incoming message that exceeds the spam threshold is sent to a folder
4 designated to hold spam messages.

1 97. (original) The method of claim 87 further comprising each user
2 setting a predetermined personalized delete threshold, wherein an
3 incoming message that exceeds the delete threshold is deleted.

1 98. (original) The method of claim 67 further comprising maintaining at
2 either the central database or the at least two centrally-maintained
3 databases at least four of the following values:

4 a) a number of messages which were explicitly ranked
5 good;

6 b) a number of messages which were implicitly ranked
7 good;

8 c) a number of messages whose ranking is unknown;

9 d) a number of messages which were explicitly ranked
10 bad; and

11 e) a number of messages which were implicitly ranked
12 bad;

13 wherein the values are based on messages having the same
14 information about the sender including one of the following:

15 a) an actual sender;

16 b) a final IP address used by the sender;

17 c) a final domain name used by the sender; or

18 d) an IP path used by the sender.

1 99. (original) The method of claim 98 wherein the values represent one of
2 the following:

3 a) message counts; or

4 b) ratings of unique users within the network.

1 100. (original) The method of claim 99 further comprising at least four of
2 the values being returned to the recipient to allow the recipient to apply
3 different weights to a message in order to categorize the message.

1 101. (original) The method of claim 67 further comprising evaluating an
2 unknown sender based on statistics of one of the following:

3 a) a known final IP address used by the sender; or

4 b) a known final domain name used by the sender.

1 102. (original) The method of claim 67 further comprising evaluating an
2 unknown sender using either a known final IP address or a known final
3 domain name based on statistics about other new senders using either the
4 known final IP address or the known final domain.

1 103. (original) The method of claim 67 further comprising giving an
2 unknown final IP address or final domain name an initial good rating.

1 104. (original) The method of claim 67 further comprising giving an
2 unknown final IP address or domain name an initial rating based on the
3 length of time the network has been in operation.

1 105. (original) The method of claim 77 further comprising older members
2 of the network overwriting a new member's message ratings when the
3 new member's ratings are inconsistent when compared to other member's
4 ratings.

1 106. (original) The method of claim 67 wherein a final message score is
2 determined by one of the following:

3 a) an average of two scores for a message; or

4 b) a product of two scores for the message;

5 wherein the scores for messages are based on statistics
6 associated with a least two of the following:

7 a) an actual sender of the message;

8 b) a final IP address used by the sender;

9 c) a final domain name used by the sender; or

10 d) an IP path used by the sender.

1 107. (original) The method of claim 78 wherein personal statistics are
2 checked at the local database before global statistics at either the central
3 database or the at least two centrally-maintained databases are checked.

1 108. (original) The method of claim 77 further comprising rating a sender
2 by:

3 a) releasing small numbers a sender's messages to
4 recipients; and

5 b) monitoring the recipients' classification of these
6 messages.

1 109. (original) The method of claim 77 further comprising changing one
2 user's rating when other members outvote the user's rating.

1 110. (original) The method of claim 78 wherein either the central
2 database or the at least two centrally-maintained databases return more
3 than one value to the recipient.

1 111. (original) The method of claim 67 wherein a first score for an
2 unknown sender using a known final IP address or final domain name
3 may be obtained by multiplying a second score for the final IP address or
4 final domain name by a number less than one.

1 112. (original) The method of claim 67 further comprising creating a
2 whitelist indicating which messages will be accepted by the recipient by
3 adding the following to the whitelist:

4 a) any e-mail addresses stored by a user of the e-mail
5 program;

6 b) any e-mail address in an outgoing message; and

7 c) any e-mail address of a sender of a message having the
8 same subject line as another message previously sent by the user.

1 113. (original) The method of claim 112 further comprising combining
2 each e-mail address added to the whitelist with at least one other piece of
3 information from the message header including:

- 4 a) a display name used by the sender;
- 5 b) a domain name used by the sender;
- 6 c) the final IP address used by the sender;
- 7 d) the final domain name used by the sender;
- 8 e) the name of client software used by the actual sender;
- 9 f) user-agent;
- 10 g) timezone;
- 11 h) source IP address;
- 12 i) sendmail version used by a first receiver; and
- 13 j) the IP path used to route the message.

1 114. (original) The method of claim 112 further comprising:

- 2 a) scanning messages received by the user; and
- 3 b) determining if a sender of a received message is on the
4 whitelist, wherein if the sender is on the whitelist:

5 i) identifying information about the sender of the
6 message based on data in the message, the identified information about
7 the sender including at least one of the following:

- 8 A) an actual sender of the message;
- 9 B) a final IP address used by the sender;
- 10 C) a final domain name used by the sender;

11 or

12 D) an IP path used by the sender; and
13 ii) sending the identified information to the at least
14 one database.

1 115. (original) The method of claim 67 further comprising categorizing a
2 received message that cannot be rated locally when user activity is
3 observed.

1 116. (original) The method of claim 67 further comprising using a second
2 formula to compute the score for the message when the message is
3 reevaluated, wherein the second formula differs from a first formula used
4 to compute the previous message score.

1 117. (original) The method of claim 67 further comprising sending
2 recipients a notification when any sender's reputation changes.

1 118. (original) The method of claim 117 further comprising reviewing all
2 messages received in a predetermined time period preceding receipt of the
3 notification and updating the categorization of the message as necessary.